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Adolescent Perceptions of Health through Photovoice in Cato Manor, South Africa

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SIT Study Abroad

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Adolescent Perceptions of Health through Photovoice in Cato Manor, South Africa

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SIT Study Abroad, Spring 2014: Community Health and Social Policy

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I hope that this project serves as a testament to the power and hidden potential of young voices, and the need to involve adolescents in community health research and planning. Adolescents have a unique perspective on community health issues, and I am beyond thankful for the opportunity to hear their concerns, aspirations, and beliefs. I am so appreciative of the contributions of my fifteen young participants; this project would not exist without their cooperation and support. In the wise words of Nelson Mandela, "There can be no keener revelation of a society's soul than the way in which it treats its children." Youth are an underutilized and underestimated resource, and they deserve to be heard.

Abstract

This study will investigate how youth in Cato Manor perceive health in their community using photovoice as the primary methodology. Photovoice is a participatory action research method that gives participants the power to answer research questions through imagery. Participants take pictures in response to a question or prompt, and then describe a self-selected number of pictures using the SHOWED process. This study will employ this methodology to answer the following questions: What objects, people, and events do youth associate with health? How do youth in Cato Manor define health and sickness?

The following report will summarize the social and physical determinants of health that participants self-identified in this research process. The main themes that emerged in photographs and discussion included: trash and the environment, substance use, nutrition, physical activity, community institutions, health inequalities, and human-animal interactions. Previous photovoice projects have posed similar research questions to adolescents, but few have involved South African youth.

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Introduction

Adolescence is a unique developmental period characterized by rapid physical, intellectual, and socioemotional growth. On a psychological level, adolescents are beginning to think in more abstract terms, and they wrestling with issues of identity and community (Piaget, 1972; 157; Kroger, 2003; 207). These characteristics transcend nation and culture, demonstrating that elements of human development are universal (Lerner & Steinberg, 2003; 4). In the research literature, these psychological changes are widely documented, but little is known about their influence on adolescents' perceptions of health. In a South African context, virtually no studies investigate health issues that adolescents self-identify, focusing more heavily on global epidemics like HIV/AIDS and Tuberculosis. This project attempts to deconstruct the physical and social determinants of health in Cato Manor, Kwa-Zulu Natal, documented through photography and narrated by its adolescent residents.

There are an infinite number of factors influencing health, and deconstructing these individual determinants can be a challenge. The Mandala of Health, a theoretical construct first developed in the 1980s, posits that health is multi-faceted entity. This construct defines health within a social-ecological framework and as an interaction between culture and the environment (Hancock, 1993; 159). The Mandala represents health as a series of nested "shells" that extend outward from the individual into the societal and natural environments. The individual is at the center of the Mandala, and this individual is composed of a body, spirit, and mind. The inclusion of these three components represents the holistic

nature of the Mandala; individual health is more than the simplistic interaction between bodily function and dysfunction.

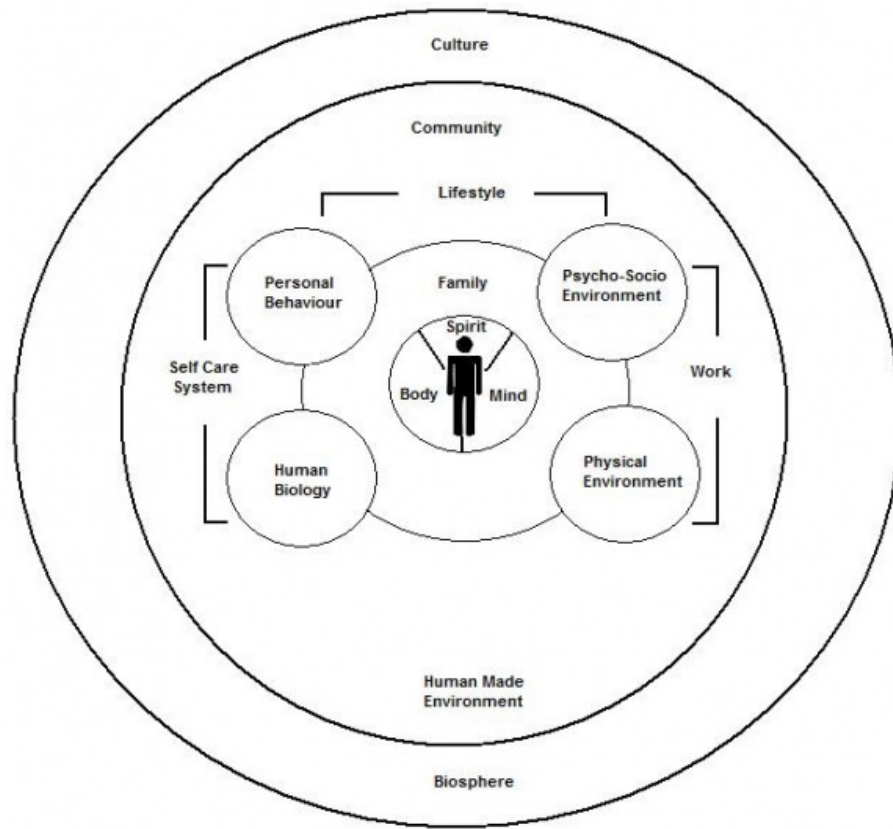


Figure 1: The Mandala of Health (Hancock, 1993; 159)

The Mandala also includes levels that reflect the broader social and physical environment influencing health. Extending outward from the individual is the family, community, and built environment. The peer group becomes increasingly influential in adolescence, and the peer microsystem can have a powerful negative influence by promoting unhealthy behaviors like drinking, smoking, and unsafe sex (Muss, 2006; 302). On the outermost shell, the Mandala contains culture and the biosphere. Depending on the specific community and time period, these categories change in size according to their relative importance (Hancock, 1993; 159). As a

result, the Mandala represents a fluid and three-dimensional construct of health. There are multiple determinants of health, and no single category encompasses the full human experience. Both the natural and social sciences are represented on the Mandala, with the social sciences dominating the upper half, and the natural sciences controlling the lower half (Hancock, 1993; 159). The combination of disciplines and levels produces a theoretical model that illustrates the complexity of human health.

Through photovoice, this research project attempts to identify which levels of the Mandala are most important to youth, revealing how youth perceive health within the context of their community. Photovoice is a participatory action research method in which participants respond to a question through documentary photography and then deconstruct their images through guided discussion. This project posed the following questions to youth after introducing them to the social-ecological model of health: 1) What does health mean to you? Take pictures of different objects, people, and events in Cato Manor that show your thoughts and feelings about health? 2) Take pictures of things in Cato Manor that make you feel healthy or sick? These questions attempted to elicit responses related to community health in Cato Manor, as seen through the eyes of youth ages 13-18. The photovoice methodology provided youth with the maximum amount of freedom to describe themselves and their community.

Since identify development is central to adolescence, the use of photovoice also provides youth with the opportunity to define themselves on a personal and societal level. As discussed previously in relation to developmental theory,

adolescence is a period in which youth are constantly reshaping their identities. As youth are developing a social identity, they are looking beyond themselves into the larger society, forming relationships with others, understanding social roles, establishing their sense of morality, and building social competency (Strack et al, 2004; 50). In contrast, the formation of personal identity is a more internal struggle in which youth attempt to define their strengths, skills, interests, desires, and weakness. Adolescents are constantly reevaluating their personal identity as they have new experiences and realizations (Strack et al, 2004; 50). The photovoice process encourages youth to develop these personal and social capacities by raising their awareness about issues relating to culture, community norms, behaviors, and social structure (Strack et al, 2004; 50).

In accordance with Paulo Friere's approach to education for critical consciousness, photovoice participants engage in this process of identity formation during data collection and analysis. Paulo Friere is one of the most influential education theorists of the 20th century, and he is celebrated for his work with marginalized groups in Brazil. In his famous book, *Pedagogy of the Oppressed*, Friere describes the components of "problem-posing education," a form of schooling that encourages students to become critical thinkers (Bartlett, n.d.; 2). Through dialogue and analysis, students are able to develop a critical consciousness of their social, political, and economic conditions. In problem-posing education, the traditional, hierarchical student-teacher relationship transforms to promote egalitarian interactions in the classroom. Friere writes, "through dialogue, the teacher of the students and the students of the teacher cease to exist and a new term emerges:

teacher-student with students-teachers.... [T]he teacher is no longer merely the one who teaches, but one who is himself taught in dialogue with the students, who in their turn while being taught also teach" (Bartlett, n.d.; 3). These democratic conversations fostering critical consciousness empower students to take action against their oppression and transform their social conditions (Bartlett, n.d.; 3).

Photovoice, like other participatory research methods, channels Freire's approach by attempting to bridge the gap between participant and researcher. Research becomes a cooperative process in which researchers and participants are co-creating knowledge, and in which all parties are actively involved in all stages of the research process. In the context of public health research, this approach is especially important because traditional research methods can reinforce systems of power and oppression (Starrin et al, 1991; 1). As one researcher observes about conventional research, "the process used to collect material also reinforce notions of superiority and inferiority...and the material once collected, is used by the research institutions and researchers for their purposes. The poor have no control over it" (Starrin et al, 1991; 1). Participatory research methods like photovoice give control back to participants, who often represent traditionally underserved groups, and thus the research process becomes a educational and empowering process for all involved (Starrin et al, ;3).

Since youth often assume a more passive and secondary role in the research process, photovoice projects with this population are especially unusual. Nevertheless, previous researchers have effectively navigated the challenges of working with this population and produced enlightening results. Even with

participants as young as 9 years old (Wilson et al, 2007; 244), researchers have gathered results about community health and personal safety. In another project, youth from a low-income urban neighborhood in the United States identified community assets and deficits, and researchers shared this information with community leaders and policymakers to promote long-term change (Strack, Magill, & McDonagh, 2004; 49). In the context of other health-specific photovoice projects, youth have identified the social determinants of health that are most significant to them, and this process demonstrated that youth may exhibit a bias towards behavioral factors in their conception of health (Woodgate & Leach, 2010; 1174.). Photovoice researchers in health have also recruited youth from countries in Asia and Africa, proving that the methodology can be effective in non-Western contexts (Mmari et al, 2013;124). South African youth who participated in this cross-cultural project identified inadequate sanitation, over-crowded-buildings, drug and alcohol consumption, and reproductive health as their primary health challenges (Mmari et al, 2013;124).

The successes of these projects influenced the design and implementation of this study. Given that adolescents are experiencing a period of identity intense development and exploration, this project affords participants with the opportunity to critically analyze their personal and social identities. From a Freirian perspective, the photovoice process is often more meaningful than the actual finished product, and the development of critical consciousness through personal reflection and critical dialogue is an essential part of the photovoice process (Wang, 1999; 185). For this reason, the project utilizes a more democratic approach for gathering data,

and also provides youth with creative opportunities to express their opinions. The participants will be able to gain a deeper understanding of health in their community, and the researcher will learn more about the photovoice methodology and its applications in community health research. Consequently, the long-term goal of this project is to raise awareness about health issues in Cato Manor, and to also empower youth to take action against the community-level problems that they identify through the photovoice process.

Frequently Used Acronyms:

HIV/AIDS: Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome

Kwa-Zulu Natal: a region in South Africa

Cato Manor: a township outside of Durban, Kwa-Zulu Natal

Mandala of Health: a model representing the social-ecological approach to health

Critical Consciousness: the state of being aware of one's social oppression

Paulo Friere: an educational theorist who influenced photovoice

SHOWED: a set of standard questions presented to photovoice participants

Methodology:**Sampling**

This study used snowball sampling to recruit fifteen participants. The sample was 60% female and 40% male, with a median age of 15 years old. The sample size was relatively small because the photovoice process generates a significant amount of photographic and written data. In one photovoice manual from the

University of Michigan School of Social Work, the authors suggest, “each photovoice project should have an average of 8-12 participants” (Shimshock, 2008; 6). In justification of this recommendation, the authors write, “the small size allows for more beneficial reflection and analysis of the issues and themes that are produced from the photovoice project” (Shimshock, 2008; 6). This specific project used a slightly larger sample size to overcompensate for potential issues related to camera dysfunction and loss to follow-up, but all fifteen participants ended up completing each stage of their part in the project.

Photovoice

Photovoice was the primary methodology for data collection and analysis in this project. As mentioned previously, photovoice is a participatory action research method that gives participants the power to answer research questions through imagery (Shimshock, 2008; 5). In response to a set of questions or instructions, participants take pictures in a designated period of time. For this project, the participants were responding to the following prompts: *1) What does health mean to you? Take pictures of different **objects, people** (if you obtain permission from them), and **events** in Cato Manor that show your thoughts and feelings about health. 2.) Take pictures of things around Cato Manor that make people feel **healthy** or **sick**.* After development and printing, photovoice researchers return pictures to participants and engage them in the SHOWED process with a self-selected number of pictures (Shimshock, 2008; 59). The SHOWED approach includes a set of questions that facilitate critical thinking and rich description in relation to specific research question(s). These questions include: *What do you see? What is really happening?*

How does this relate to our life? Why does this situation, concern or strength exist?

What can we do to educate others about this situation, concern, or strength? What can or needs to be done? (Shimshock, 2008; 59). The researcher establishes themes in participants' responses, and compiles the combination of written and photographic data in the final report.

Photovoice Adaptations

This project followed this process, but there were a few instances when the researcher deviated from the traditional photovoice methodology. For example, the researcher provided the participants with a picture of the Mandala of Health along with a description of the two photo prompts listed above (see Appendix 1). The researcher explained, "health can mean many different things, and there are many things in your life that affect your health." The researcher then pointed to each level of the Mandala and stated that the accompanying caption can "affect your health." These captions represented broad categories like "community," "culture," and "human biology." This short description of the multiple determinants of health was designed to provide the participants with inspiration for their pictures.

The Mandala activity may have affected the content of participants' pictures, but the developmental capacities of this age group required the researcher to provide more detailed instructions. Although many photovoice projects use a more "naturalistic" approach in which participants receive minimal guidance before taking photographs (Catalani & Minkler, 2010; 441), projects with youth typically provide greater structure in training sessions. For instance, in one photovoice project with youth between 11 and 17 years old, the authors explicitly recognized

the importance of supporting the developmental needs of this age group: "... keep in mind that many youth, especially younger ones, will need a good deal of guidance and structure. Thus, neither giving participants a blank slate nor predetermining all activities is advisable" (Strack, Magill, & McDonagh, 2004; 54). Given these recommendations, this project tried to achieve a balance between offering guidance and supporting free expression. The Mandala description complemented the research prompts and provided participants with a framework for understanding health.

In addition, this project utilized individual interviewing, rather than group discussion, when analyzing photographs with participants. In many photovoice projects, researchers use group discussion while engaging participants in the SHOWED process (Wang et al., 2004; 911; Wang & Pies, 2004; 95). The use of group discussion is designed to facilitate Freirian critical consciousness and complex analysis of social issues (Mink & Catalani, 2010; 438). However, due to time constraints and the relatively large sample size, the researcher decided to meet with the participants on an individual basis to discuss their photographs. Other photovoice projects have also made this adaptation and have still maintained the integrity of the methodology (Mink & Catalani, 2010; 440-442; Jurkowski and Paul-Ward, 2007; 362). Since adolescents are often very attuned to peer approval and acceptance (Muss, 2006; 302), the use of individual discussion also gave the researcher a more accurate and uncensored understanding of their photographs.

In these individual discussions of the photographs, the researcher allowed the participants to take control of the discussion and speak about health issues that

were important to them. The researcher started the discussion by instructing participants to select the photographs that “were their favorites or the ones that they felt were most significant, important, or meaningful.” This prompt reflected the work of other photovoice researchers who provide similar instructions during the photo selection process (Wang and Pies, 2004; 98; Wang et al, 2004; 912). After performing this step, the participants answered the SHOWED questions about each photograph that they selected. The researcher transcribed their exact responses and referred to them in the formal data analysis process.

Ethical Concerns

As a visual and documentary methodology, photovoice has multiple ethical considerations. Participants have the possibility of taking illicit or inappropriate pictures, or they may take pictures of people without informed consent. These issues are an inherent challenge of the methodology, but the design of a specific project can address these challenges to ensure ethical research. In accordance with suggestions put forth by other photovoice researchers, this project ensured that participants and their pictures were protected.

In the context of this research study, the participants were minors, so use of photovoice with this population required special precautions. All participants in this study obtained written consent from a parent or guardian in order to participate and receive their cameras (see page 52 for the actual consent form). This prerequisite ensured that youth had the support of their parent or guardian before beginning the project. In addition, when youth were given their photovoice assignment, the researcher emphasized that participants could only take pictures of

other people “if you obtain permission from them.” This exact requirement was included in the photovoice prompts that were provided to participants in paper form (see Appendix 1). Participants were personally responsible for obeying this rule, and adherence was not quantified or documented. However, further measures discussed in the following paragraphs ensured that participants and people featured in their photographs were protected.

In past studies, researchers have had more time and resources to address ethical concerns, but the timing of this project was such that discussions about ethics only lasted 10-20 minutes. For example, in one photovoice project done with youth in the U.S., the researchers incorporated a 20-week photovoice curriculum that dedicated multiple sessions to ethical issues in photovoice (Strack, Magill, and McDonagh, 2004; 55). These sessions were designed to introduce youth to power and ethics of photography, as well as issues associated with photo exhibition (Strack, Magill, and McDonagh, 2004; 55). Other projects have also provided participants with extended training sessions, for upwards of 25 weeks, and ethical considerations were also part of the curriculum (Wilson et al, 2007; 245). However, smaller-scale studies have used a similar approach to this project, with the initial interview serving as the opportunity to discuss photovoice ethics (Woodgate and Leach, 2010; 1174). The success of this expedited approach demonstrates that photovoice projects can still be ethical when youth receive limited support, although increased instruction can enhance the overall experience.

As a result, this project incorporated suggestions from previous studies about managing ethics, but adapted certain considerations. The researcher provided

a quick overview of the ethical guidelines in this project at the initial meeting with the participants. Due to time and funding limitations, the participants were not able to participate in a multi-week photovoice curriculum. On the data analysis end, the researcher filtered out any illicit responses or photographs for the publication. No faces or identifiable information were included in the final report. This precautionary measure ensured that the individuals featured in the photographs were not identifiable, and the participants were given the maximum amount of protection.

Data Analysis

Since the research literature has not extensively documented adolescent perceptions of health in South African townships, grounded theory served as the primary mode of data analysis. Grounded theory refers to a set of methods that allows researchers to inductively construct theories and themes “grounded” in the actual data (Guest, MacQueen, & Namey, 2011; 12). The process requires researchers to review transcripts, identify themes, build connections between themes, and construct theoretical models that directly reflect the data. Ultimately, analysis depends on the content of the data, rather than on predetermined constructs in the research literature (Guest, MacQueen, & Namey, 2011; 12). Concepts emerge from the raw data, and the researcher builds a code structure that mirrors commonalities in participants’ responses.

Consequently, the coding structure in this study included the following primary categories: trash and the environment, substance use, nutrition, physical activity, community institutions, health inequalities, and human-animal interactions.

Many categories encompassed both protective and risk factors relating to health, reflecting how participants accurately responded to the photography prompts and identified elements of their community that made “people feel healthy or sick.” Within each category, there were subcategories that reflected these differences and the complexity of participants’ responses. The subcategories will be discussed in more detail in the results section since these groupings reveal information about the project findings.

Findings and Analysis

Trash, Pollution, and the Environment

Photographs relating to trash, pollution, and the environment were the largest group of pictures, with thirteen of the fifteen participants contributing to this section. Since this topic had so much data, the following subcategories emerged: ignorance and apathy, inadequate disposal services, air pollution and ill-health, concern for children, community-based action, and government-oriented action. These subcategories reflected how participants defined the causation, effects, and solutions of the community’s trash problem, as well as their broader ideas about health and the environment.

The first section, ignorance and apathy, characterized how many participants believed that community members were either uneducated or unconcerned about the health effects of littering. For example, select participants argued that people underestimated the consequences of littering: “They don’t think it is dangerous or harmful to them” (ID#1, 2014, pers. comm.). This next participant provided a similar opinion, and she also referred to lack of knowledge about pollution: “I think that

people don't know about how it can be dangerous to throw dirty bins around the environment...they don't know about pollution." (ID#9, 2014, pers. comm.) In contrast, other participants emphasized that people were either indifferent or lazy when they chose to improperly dispose of their trash. When describing the littering of food packaging, a 16-year-old boy offered the following opinion: "They don't even care about how to put it or throw it in a bin...they just throw it outside" (ID#6, 2014, pers. comm.). Likewise, a 15-year-old girl commented, "People are too lazy to drive to the dumping sites and discard of their rubbish properly"(ID#15, 2014, pers. comm.). These opinions reflect how many participants conceived of the issue in a psychological framework, highlighting the internal motivations of littering.



"People are disrespecting the church" (ID#8, 2014, pers. comm.)

Likewise, multiple participants emphasized the more structural origins of Cato Manor's trash problem. These underlying issues included the absence of

community garbage bins and the low frequency of trash pick-up. The following quote from a 15-year-old female participant exposes the lack of “big bins” and its effect on waste disposal: “Basically people don’t have those big bins, big garbage bins, so they would rather put it on the street” (ID#2, 2014, pers. comm.). Another 17-year-old female participant provided a similar answer, but also suggested that the government played a role in propagating this issue. She responded to the question, “Why does this situation occur?” with, “Because the government didn’t provide bins “ (ID#7, 2014, pers. comm.). In addition, a 13-year-old boy emphasized the impact of the intermittent dump truck schedule, “The dumpster truck only comes once a week on Friday. Households accumulate more than one or two bags of trash, and they have to dispose of the trash somehow...and that’s why they end up throwing it in the bushes. (ID#11, 2014, pers. comm.) These perspectives demonstrate that many participants recognized how structural barriers, as well as the personal motivations, perpetuated improper waste disposal.



“Making this city clean” (ID#12, 2014, pers. comm.)

Air pollution was one of the main reasons why participants identified trash as a health problem. When describing a photograph of “dirty yard,” a 14-year old female participant stated, “(this is a) dirty property, which can cause air pollution. (ID#1, 2014, pers. comm.). Other participants went so far to say that this trash-based pollution made people sick. A 15-year old male participant spoke about the connection between trash, air pollution, and ill-health: “People throw dirty things and the air gets polluted and we can get sick.” (ID#12, 2014, pers. comm.) Likewise, A 16-year old boy felt personally affected by the polluted air, and stated, “I feel sick when I am breathing that air.” (ID#6, 2014, pers. comm.) Whether or not excess trash actually creates air pollution, the participants almost unanimously agreed that the littering affected their health through polluted air.

In addition, participants discussed other ways that trash could make people sick. One 15-year old girl talked about her allergy to maggots that lived on the trash. She described, “Small white things that will crawl will be everywhere....I’m allergic to those. My hand itches. “ (ID#2, 2014, pers. comm.). Other participants talked about medical terms like “infections” and “germs” in relation to the trash problem. They expressed concern over the spreading of disease and germs from waste. One commented, “they can get infections from those bins. “(ID#9, 2014, pers. comm.). Another participant described, “The dust comes up and makes people sick. All the germs come out. “(ID#11, 2014, pers. comm.). These various theories show that the participants are aware of basic medical terminology, and they are making connections between their environment and the presence of disease.

The next subcategory, concern for children, proved to be the most unexpected theme that emerged in discussions about trash. Many participants were concerned that children played in trash-ridden areas, increasing their chances of getting sick. One participant highlighted the fact that children were more vulnerable than adults to disease, and their exposure to trash was especially harmful: “People must be educated about the harms or dangers of throwing trash everywhere...especially towards kids because kids are the more vulnerable ones catching germs and getting sick.” (ID#11, 2014, pers. comm.) Another participant suggested that children actually play with the trash. She said, “Kids play ‘house’ with these things and they will become sick.” (ID#2, 2014, pers. comm.). Similarly, another participant implied that children could choke or suffocate on plastic waste: “When children are playing with plastic, they will cover their faces and they may die

because of plastic. “(ID#9, 2014, pers. comm.). These responses demonstrate that the participants recognized how trash could negatively affect children, and they felt passionately about creating a community in which children could safely play.



“Someone might get hurt playing on this thing.” (ID#15, 2014, pers. comm.)

Solutions to the trash problem fell into two categories, community-based and government-oriented. The community-based approaches incorporated more grassroots approaches like door-to-door campaigns, township cleanups, print advertisements, community meetings, and protests. For instance, one participant advised, “We will call up on the community, like a community meeting, and tell them that people need to stop dumping trash on this side, and the community can come together and help clean it up” (ID#10, 2014, pers. comm.). Another participant provided similar advice, recommending that the community engage in a multi-part trash campaign. This 13-year-old boy suggested, “People...the community needs to

take part in a door to door campaign educating and making people aware of this problem. Volunteers can pick up the trash and clean the community where there is most trash (ID#11, 2014, pers. comm.) Another participant spoke about the possibility of monthly cleaning events. She proposed, “We must clean our playground each and every month.” (ID#3, 2014, pers. comm.). Based on these responses and other similar comments, many participants felt that Cato Manor residents should actively participate in improving the trash situation, implying that change needed to come from within the community.

In contrast, many participants also expressed the need for the government intervention. Often, participants blended government- and community-level interventions, showing that the two approaches were not mutually exclusive. Government interventions were frequently related to the dissemination of garbage bins, but two participants also suggested implementing stricter littering laws and fines. The following quote from a 15-year-old female participant symbolizes what many youth were advocating for: “(the) counselor needs to buy us rubbish bins so that people don’t put rubbish on their yards.” (ID#3, 2014, pers. comm.) Another 15-year-old female participant echoed this sentiment and called for greater government involvement in trash disposal. She said, “The government has to provide plastic and bins for people to throw in it.” (ID#1, 2014, pers. comm.) Conversely, one participant suggested that the government intervene by penalizing people who litter. She advocated, “We should just be fined because what they are doing is affecting more than one person. It affects people’s health...” (ID#15, 2014, pers. comm.).

Substance Use

Multiple participants identified substance use as a significant health problem in Cato Manor, affecting both youth and adults. The most commonly cited substances included cigarettes, alcohol, and illegal drugs. The participants frequently cited peer pressure in their discussions of adolescent alcohol and cigarette use, demonstrating that they understood some of the underlying issues of youth engaging in these risky health behaviors. When asked about action steps, participants identified creative solutions to adolescent substance abuse, ranging from school-based health education to the creation of youth centers. Ultimately, the participants' responses revealed a complex and nuanced understanding of the causes, affects, and solutions to substance use in their community.

Participants were in agreement that excessive alcohol use was an intergenerational problem that had personal and social origins. As one 15-year-old female participant eloquently described, "People must not rely on alcohol to solve their problems." (ID#14, 2014, pers. comm.). As this quote suggests, the reasons for alcohol abuse defined by youth were often complex, often relating to mental and emotional health. Many participants were attuned to the role of the social environment in substance use, especially within youth culture. Furthermore, numerous participants described the powerful influence of peer pressure on young people's drinking habits. One 15-year-old female participant felt personally affected by these influences, feeling ostracized if she chose to abstain from alcohol:

"If I don't drink, people will call me stupid or lame and think I'm a special girl who doesn't do bad things. Its almost like I'm forced to drink...its almost like

peer pressure. When people around me drink, it makes it alright for me to drink when it's bad" (ID#2, 2014, pers. comm.).

Other participants also described the connection between peer pressure and adolescent smoking. A 18-year old boy commented, "the most thing that drives them to do this is peer pressure...they think they are cool by smoking" (ID#14, 2014, pers. comm.). Another male participant, also described this need to be "cool," and he argued that the allure of smoking was related to a desire to feel mature: "I think they (adolescent smokers) want to be cool and they want to rush into things that are not good for them, instead of enjoying life as teenagers, focusing on more important things like school activities. (ID#13, 2014, pers. comm.)



Title: "The Youth Addiction" (ID#14, 2014, pers. comm.)

Participants also described the adverse effects of alcohol use among older residents of Cato Manor. Participants were especially critical of older drinkers, and

they expressed emotional and physical impact of alcohol abuse in the community. One 17-year old boy described the sadness and disapproval that he felt when seeing older residents drinking: "Its such a shame seeing old people, who should be taking more care of their lives and bodies, drink this potent drink because it kills them (ID#14, 2014, pers. comm). A 15-year-old girl described a similar sentiment about the adverse influences of alcohol, and she also highlighted the connection between alcohol use and domestic violence:

"People around my area are not really alert that alcohol ruins people's lives. For example, people like my neighbor, when he drinks, he will start beating his wife. When he is drunk, he will beat his wife up because he is drunk" (ID#2, 2014, pers. comm.).

Another participant drew connections between alcohol consumption and trash in the community. This 15-year old female participant commented, "Drunk people throw or drop their glass bottles on the streets where people walk and don't bother like trying to clean it up." (ID#15, 2014, pers. comm.). This same participant also described how she was personally affected by this pattern of excess alcohol consumption and improper waste disposal. She commented, "it impacts me because I've been cut a lot by broken glass, (even) while I was wearing shoes" (ID#15, 2014, pers. comm.). When prompted to elaborate on why people disposed of their alcohol bottles in this way, this participant emphasized the inaccessibility of bins on the street: "I think that people throw glass and trash on the ground because there are no bins on the street" (ID#15, 2014, pers. comm.).



“People are drunks, and they are so drunk that they drop their glassware” (ID#15, 2014, pers. comm.)

When discussing solutions to adolescent alcohol, drug, and cigarette use among, participants discussed both educational and policy-level approaches. One participant discussed the need for adult intervention, “they (teenagers) need to be educated...like get told by parents and teachers and members of community that they got to stop smoking because it might affect their future” (ID#13, 2014, pers. comm.). The same participant also discussed the possibility of building a youth center, and its potentially positive effect on adolescent smoking: “A lot of things can be done...(like providing) youth centers where they can study and use computers. That will take them from the street corners that they stand in that influence them to smoke (ID#14, 2014, pers. comm.). Another female participant cited the need for stricter policies in bars: “There could be ground rules at places like taverns and clubs where people under 18 should not buy drinks... (and) when they see that you are too drunk, they do not sell you drinks and alcohol any more” (ID#2, 2014, pers.

comm.). Essentially, the participants discussed a wide-ranging set of solutions, and these various approaches addressed different determinants of adolescent smoking.

Nutrition

Participants' discussion of nutrition fell under the following subcategories: healthy food, accessibility of healthy food at tuck shops, unhealthy food, and community-based interventions. The adolescent participants displayed an accurate perception of what was "healthy" and "unhealthy," emphasizing the importance of fruit and vegetables in a balanced diet, and criticizing the prevalence of junk food and cooking oil in their community. The participants were often aware of the importance of food accessibility, and they frequently discussed how the availability of fruits and vegetables at "tuck shops" helped the community. When providing suggestions for improving nutrition in the community, the participants talked about solutions like starting campaigns, increasing the number of street vendors, reducing the cost of healthy foods, and involving government agencies.

In their discussions of healthy eating, participants frequently identified foods like fruits, vegetables, oats, and bread. When describing the benefits of eating bread, a 13-year old male participant said, "It's is good because it has essential vitamins and nutrients that one needs to stay healthy " (ID#11, 2014, pers. comm.). Some participants also argued that the consumption of healthy foods prevented ill-health. As one 15-year old female participant described, "If you eat mostly healthy food, there is no sickness (ID#9, 2014, pers. comm.)." Other participants commented on the less quantifiable benefits of healthy eating. One 15-year-old male participant

commented, “People eat healthy foods to make their bodies alive” (ID#12, 2014, pers. comm.).

Despite the availability of both healthy and unhealthy foods at tuck shops, participants highlighted the integral role of these stores in promoting good health in the community. Participants looked favorably upon the shop owners who “sell right things because they don’t want people to get sick.” Similarly, another participant argued that shop owners sold healthy foods because they cared about the health and well-being of the community: “they want people to be healthy and don’t want people to walk a long journey.” (ID#8, 2014, pers. comm.). One participant described the economic benefits of buying healthy foods close-to-home, and how the easy accessibility of these goods supported the community: “It’s helping because they don’t waste money to take a taxi to go into town to buy the things. It’s easy for them” (ID#10, 2014, pers. comm.).



“They are selling vegetables, fruits, and chips.... vegetables and fruits just to help the people to come buy it near at home” (ID#10, 2014, pers. comm.).

When talking about unhealthy foods, participants cited “junkies,” chips, and cooking oil. One 13-year-old boy believed that excess cooking oil caused adverse health problems, “When you are cooking, you don’t have to put a lot of oil because oil is not healthy for the other people. Oil makes your stomach fat and that is unhealthy” (ID#11, 2014, pers. comm.). Other participants suggested that the accessibility and low price of unhealthy foods influenced people’s nutritional choices. One 15-year old female participant highlighted how the availability of junk food at her school impacted her consumption of “junkies:” “When I’m at school, I will eat junky because that’s what they sell” (ID#2, 2014, pers. comm.) Another participant described how the low price of unhealthy food influenced what people

bought: “they like cheaper things because they think that it is healthy, but it is unhealthy ” (ID#11, 2014, pers. comm.)



“It is healthy because you don’t have to use oil to cook the meat” (ID#13, 2014, pers. comm.)

In their discussions about promoting healthy eating in the community, the participants gave creative answers that reflected their complex understanding of nutrition. Many participants mentioned the role of health education, and one participant emphasized the importance of these conversations happening at an early age, “What needs to be done is that start from a young age...I was not told that veggies were good for me. Tell young kids that veggies are good for you” (ID#2, 2014, pers. comm.). Multiple participants also described the need to increase food accessibility and availability. One 17-year-old participant provided the following suggestions, “we can reduce the price so we can all buy it,” (ID#7, 2014, pers.

comm.) and, “there have to be the street vendors at every corner” (ID#7, 2014, pers. comm.). Other participants provided recommendations about government intervention. One 17-year old participant commented, “people who can’t afford food should be provided food for free” (ID#14, 2014, pers. comm.) Another 13-year-old participant spoke about the role of government-funded vegetable gardens, “tell the department of health to educate them to plant vegetables that they can do themselves and to make a garden for themselves...and the government must give them the seed.” (ID#11, 2014, pers. comm.).

Physical Activity

Discussions about physical activity illustrated that the participants recognized the benefits of physical exercise, but had differing opinions about why people exercise. For example, one female participant highlighted how people, women in particular, exercise for thinness: “People want to be fit and people want the things in life. If you are a fat person, you cannot get skinny jeans or short skirts” (ID#3, 2014, pers. comm.). Other participants suggested that people exercise for fitness, health, teamwork, and mental fitness. One 17-year-old participant commented about a picture showing a soccer practice, “they are practicing to increase their physical fitness as well as their mental fitness because in soccer there are a lot of things that you learn. “ (ID#14, 2014, pers. comm.) Another participant had a similar perspective, “we must tell each and every person that he or she must go the gym and make himself or herself healthy. In life we must be healthy to make our minds healthy too. (ID#3, 2014, pers. comm.). Theses discussions of “mental

fitness” demonstrated an awareness of the connection between mental and physical health.

Participants cited role modeling and facility improvement as the primary modes of promoting exercise. One 15-year-old female participant spoke about the role of elders in encouraging young people to exercise: “People like grannies can exercise and show people that anyone can do it....nowadays grannies can play soccer” (ID#2, 2014, pers. comm.). Another 17-year-old male participant talked about sharing the benefits of soccer with non-athletes: “We can influence people to go to the grounds and watch others play, and they can see what drives people to play sports and to increase teamwork” (ID#14, 2014, pers. comm.). Discussions about existing athletic facilities exposed a need for cleaner and improved grounds. One participant commented, “What needs to be done is that we must keep our grounds clean so that people can play basketball, soccer, rugby” (ID#3, 2014, pers. comm.). Another participant had a similar perspective, “They can increase the facilities for sports to improve the level of playing” (ID#14, 2014, pers. comm.).

Community Institutions: Schools, Churches, Clinics, and Family

Select participants discussed the role of schools, churches, and clinics in promoting community health, and many of these conversations exposed how participants understood the holistic nature of health and viewed these institutions positively. For example, three separate participants spoke about how education, from preschool to secondary school, impacted health in different ways. In a discussion about the role of preschools in health promotion, a 14-year old female participant talked about how schools reinforce healthy behaviors. She said, “They

teach about health about how to protect yourself...and to play together with children. (ID#1, 2014, pers. comm.) In contrast, an 18-year-old male participant talked about how education combats unemployment and poverty, two major determinants of ill-health: “Without teachers, that might cause people to suffer from unemployment, and that could cause poverty in people “ (ID#13, 2014, pers. comm.). Likewise, another participant described how school keeps teenagers out of trouble and affects their future well-being: “School can save a lot of young people from doing wrong things and can make them decent people in the future.” ID#14, 2014, pers. comm.). While these last two comments do not explicitly implicate “health,” these quotes demonstrate that select participants include educational institutions in their conception of health.



“People must go to school and study as hard as they can.” (ID#14, 2014, pers. comm.)

Two participants talked about churches and their influence on emotional and spiritual health. These participants described how church influenced personal identity, helping people to understand where they came from and where they were going. For instance, one 18-year-old female participant said, “I feel that going to church builds a person and it helps you know where you are going and what you mean in life” (ID#5, 2014, pers. comm.). Another 18-year-old male participant reinforced this sentiment and spoke about how church “brings the knowledge to the person that brought us to life...we need to go to church to know where we are coming from” (ID#13, 2014, pers. comm.). This same participant also talked about the invigorating power of prayer, drawing attention to the more health-specific role of church: “it brings out life in people through the praises they do”(ID#13, 2014, pers. comm.).

Only one participant talked about the role of clinics in the community, but his perspective exposed important information about the local healthcare system. In particular, this participant implied that the local clinic did not adequately service the entire community. When describing the photo, he alluded to the lines that people must wait in to receive services: “this is where people queue up to go to the clinic” (ID#14, 2014, pers. comm.). In order to improve service delivery in the community, he suggested, “they can increase the number of clinics because only one clinic services the whole Cato Manor area” (ID#14, 2014, pers. comm.). While this participant was the sole voice of the healthcare system in Cato Manor, he provided valuable information about the clinic’s role in the community and addressed areas of improvement.



“The clinic helps the ones who are sick” (ID#14, 2014, pers. comm.)

Family

An 18-year old female participant talked about the role of family in promoting health, and much of her discussion focused on emotional health rather than physical health. She asserted that having a “united” family provided family members with the opportunity to voice their opinions and feel supported. The following quote characterizes her beliefs:

“I feel that having a family, like brothers and sisters that are united, is healthy because you get to share values, like if you are united like this. If someone has a problem, he or she can relate the story to his brother or sister. You have the ability to speak out if you have a problem” (ID#5, 2014, pers. comm.).



“It is important for them to love one another and be united as a family” (ID#5, 2014, pers. comm.)

Health Inequalities

Although only two participants contributed to this category, these adolescents revealed important information about health disparities in their community and in South Africa. The first conversation about inequalities centered on toilets and improper waste disposal. This participant was describing how people pee on a local soccer field, and she attributed this occurrence to a lack of facilities and emphasized the need for government intervention: “I think this situation is a concern because some people don’t have toilets and houses. Our counselor needs to build houses and toilets so that people can pee inside their houses, inside of their toilets.” (ID#3, 2014, pers. comm.) The second health inequality related to water use, and differences in clean water accessibility between urban and rural areas. The

15-year-old female participant started the conversation by stating, “People in my community have clean water...but not all of our country has clean water. “ (ID#2, 2014, pers. comm.) This participant went on to explain why she thought these differences existed, and she stressed the government’s responsibility to provide water for all South Africans. The following quote summarizes her response:

“The reason why some people don’t have clean water is that the government don’t go the rural areas... the government don’t go to rural areas to see if people don’t have clean water or not. The rural areas don’t have much use...that’s why the government doesn’t care about the rural areas. And the reason why we have water (is that) we are in the urban areas. We fight for what we want. The people in rural areas think that they don’t have power, but they really do. If they speak up and say ‘we want water,’ they will get water because they have equal powers as the urban areas“ (ID#2, 2014, pers. comm.).



“We all have the same right to clean water” (ID#2, 2014, pers. comm.)

Human-Animal Interactions

Multiple participants spoke about the adverse impact of dogs in the community, as well as the importance of protecting animals. For example, two participants spoke about the role of dogs in spreading disease and waste in the community. The first participant commented on the role of dogs in perpetuating Cato Manor's trash problem, and the implications for its human residents. She said, "When the dog comes and rips the rubbish, it creates rabies. If the dog is part of the family and you play with it, you can get sick" (ID#3, 2014, pers. comm.). Another participant, spoke about the importance of injecting dogs to curb disease: "I feel that dogs should be injected in order for them to not get the diseases that dogs have. In doing that, it helps the community. Even if a dog bites a person by mistake, that person won't fall sick" (ID#5, 2014, pers. comm.) In contrast, one participant emphasized the importance of creating a clean community for both humans and animals. In her description of an area filled with trash, she expressed concern for Cato Manor's animal population. She commented, "Animals can eat things in the bush...plastic is very dangerous to animals. It can damage their brains." (ID#9, 2014, pers. comm.) These different responses demonstrate that the participants understood that animals played a role in spreading disease, and they recognized the importance of addressing these issues in order to improve human health.



“They are not educated about the things that could happen if their dog has disease and bites another person” (ID#5, 2014, pers. comm.)

Literature Review

Bartlett, L. (n.d.). Paulo Freire and Peace Education. Teachers College, Columbia University. Retrieved from Eliza Governer PhD.

This paper summarizes the life and achievements of Paulo Friere, one of the most influential radical education theorists of the 20th century. Since the photovoice methodology draws upon Frierian ideals, this paper describes some of the characteristics of participatory research within an education framework.

Guest, G., MacQueen, K. M., & Namey, E. E. (2011). *Applied thematic analysis*. Sage.

This chapter reviews qualitative data analysis strategies, including grounded theory. The Cato Manor photovoice project followed the grounded theory guidelines established in this paper, and established themes in the data through inductive reasoning.

Hancock, T. (1993). Health, human development and the community ecosystem: three ecological models. *Health promotion international*, 8(1), 41-47.

This paper describes Mandala of Health, a visual representation of the social-ecological model of health. The Mandala served as the primary theoretical basis of this investigation, and participants were given a copy of this visual aid before taking photographs.

Jurkowski, J. M., & Paul-Ward, A. (2007). Photovoice with vulnerable populations: Addressing disparities in health promotion among people with intellectual disabilities. *Health Promotion Practice*, 8(4), 358-365.

This study describes a photovoice project investigating the health needs of Latinos with intellectual disabilities. The authors used individual interviews, rather than group discussions, when engaging in the SHOWED process. This adaptation of the traditional photovoice process influenced this project's methodology.

Kroger, J. (2003). Identity development during adolescence. *Blackwell handbook of adolescence*, 4, 204-226.

This chapter introduces major theories related to adolescent identity development. A description of Erik Erikson's theory of personal identity, which is characterized by identity versus role confusion, was included in this paper. The photovoice process places a large emphasis on self-definition and identity formation, and this paper helped to connect the process and target population.

Mink, M. and Catalani, C. (2010). Photovoice: A Review of the Literature in Health and Public Health. *Health Education & Behavior*. (37) 424.

This paper summarizes 37 peer-reviewed articles published before January 2008 that use photovoice for public health applications with diverse participants ranging in age. The authors determine that the median project size was 13, and this number

informed the sample size for the Cato Manor project. The paper also discusses different techniques for decoding the photographic data, and the use of one-on-one interviewing rather than group discussion in select studies influenced the methodology for this project.

Mmari, K., Blum, R., Sonenstein, F., Marshall, B., Brahmbhatt, H., Venables, E., ... & Sangowawa, A. (2013). Adolescents' Perceptions of Health from Disadvantaged Urban Communities: Findings from the WAVE Study. *Social Science & Medicine*.

This article summarizes a cross-cultural study of adolescents' perceptions of health in their communities across the United States, South Africa, China, India, and Nigeria. All of the participants lived in "disadvantaged" urban communities and were between the ages of 15 and 19. The two main research goals included 1) exploring adolescents' perceived health and their top health challenges and 2) describing the factors that adolescents perceive to be related to their health and health care utilization. The cross-cultural nature of this study, especially its involvement of South African youth, directly relates to this project. Photovoice, among other qualitative methods, was used with select participants across locations.

Muss, R.E. (2006). Theories of adolescence (6th ed.). New York: McGraw-Hill publishers.

This book discusses theoretical frameworks relating to adolescent development. One chapter in this book, *Friendship Patterns and Peer Group Influences*, provided key information about the power of friendship in adolescence. Since many of the participants talked about friends in relation to health, this source confirmed this finding.

Piaget, J. (1972). Intellectual evolution from adolescence to adulthood. *Human development*, 15(1), 1-12.

This work outlines Piagetian theory in the context of adolescent development. According to Piaget, adolescents are developing new "cognitive structures" between 12 and 15 years old, and the acquisition of these structures allows youth to think abstractly. This perspective was relevant to the photovoice project because many of the participants fell into this age range, and their ability to think abstractly affected their perceptions of health.

Shimshock, K. (2008). Photovoice Project Organizer & Facilitator Manual. University of Michigan, School of Social Work Good Neighborhoods Technical Assistance Center (TAC).

This document provides step-by-step instructions for how to conduct a photovoice project. The instructions follow the photovoice process specified by Dr. Caroline Wang, one of the pioneers of photovoice. The description of the methodology informed this project, especially the explanation behind the SHOWED set of questions. This project also adapted the consent and SHOWED forms that were included in the appendix of this paper.

Starrin, B.& Svensson, P.(1991). Participatory Research; A Complementary Research Approach in Public Health. *European Journal of Public Health*. 1 (29-35).

This paper outlines the application of participatory research in public health. The authors define participatory research as the active involvement of a group of people in all stages of the research process. Since photovoice is a type of participatory research, this source is relevant to this study. The authors discuss the limitations of participatory research, all of which also apply to the photovoice methodology.

Stevens, C. A. (2006). Being healthy: Voices of adolescent women who are parenting. *Journal for Specialists in Pediatric Nursing*, 11(1), 28-40.

This article describes a photovoice project in which adolescent mothers defined their health needs and described what “being healthy” meant to them. The researchers gave the young women cameras to photograph aspects of their everyday life that affected their health, and the researchers also conducted traditional interviews with the participants. After assigning phrases into codes and grouping these codes into categories, the researchers established three categories that characterized participants’ definitions of “being healthy.” The description of this coding process influenced data analysis in this project.

Strack, R. W., Magill, C., & McDonagh, K. (2004). Engaging youth through photovoice. *Health Promotion Practice*, 5(1), 49-58.

This photovoice process engaged 14 low-income, urban youth between 11 and 17 years to document community assets and deficits. The authors give a detailed description of the importance of using photovoice with adolescents, incorporating developmental theory in a discussion about identity formation. This article is relevant because it employs a developmental lens when analyzing the photovoice process, and the authors provide a detailed description of how photovoice affects personal and social identity.

Wang, C. C. (1999). Photovoice: A participatory action research strategy applied to women's health. *Journal of Women's Health*, 8(2), 185-192.

This article summarizes photovoice projects relating to women’s health. The author’s description of the theoretical frameworks influencing photovoice impacted this project. While this paper deals specifically with women’s health, the use of photovoice in public health research provided helpful information about the methodology.

Wang, C.C. (2006). Youth Participation in Photovoice as Strategy for Community Change. *Youth Participation and Community Change*. Haworth Press inc.

This article summarizes ten projects that employ the photovoice methodology with young participants. This article is relevant to the study because the Cato Manor project uses a modified form of photovoice to investigate how youth perceive health. Many of the projects summarized in this article relate to public health, and the

developmental lens in these studies has informed the design of the Cato Manor project.

Wang, C. C., Morrel-Samuels, S., Hutchison, P. M., Bell, L., & Pestronk, R. M. (2004). Flint photovoice: Community building among youths, adults, and policymakers. *American journal of public health, 94*(6), 911.

This article summarizes a photovoice project in Flint, Michigan that asked 41 youth and adults to document community assets and concerns. The researchers established themes in the data if at least 4 photographs or stories supported the construction of that theme, and this methodology choice influenced data analysis in this project.

Wang, C. C., & Pies, C. A. (2004). Family, maternal, and child health through photovoice. *Maternal and child health journal, 8*(2), 95-102.

This project recruited sixty participants ranging in age from 13 to 50 to photograph people, places, and things that could convey their views on family, maternal, and child health issues in their community. The authors effectively describe the theoretical basis for photovoice, describing its origins in Paulo Freire's approach to education for critical consciousness, feminist theory, and documentary photography. This study is relevant because the researchers recruited youth to document health issues in their community, and the authors gave a detailed description of the theoretical framework of photovoice.

Wilson, N., Dasho, S., Martin, A. C., Wallerstein, N., Wang, C. C., & Minkler, M. (2007). Engaging Young Adolescents in Social Action Through Photovoice The Youth Empowerment Strategies (YES!) Project. *The Journal of Early Adolescence, 27*(2), 241-261.

This paper describes the applications of photovoice with early adolescents ages 10-12 participating in the Youth Empowerment Strategies (YES!) project. The photovoice participants were instructed to capture images at school that made students feel happy, healthy, or safe, or things that made students feel unhappy, unhealthy, or unsafe. This study is relevant because the participants are youth, and the researchers used the photovoice process to investigate issues relating to health.

Woodgate, R. L., & Leach, J. (2010). Youth's perspectives on the determinants of health. *Qualitative health research, 20*(9), 1173-1182.

This article summarizes a photovoice project exploring how 71 Canadian youth between 12 and 19 years of age viewed health. The researchers used a combination of photovoice and traditional ethnographic methods. The project showed that youth have a broad understanding of health, but lifestyle factors like healthy eating and exercise dominated conversations about health. This paper is relevant because the researchers use a similar sample and investigate perceptions of health through photovoice.

Conclusions

On a surface level, this project revealed important information about health issues in Cato Manor, exposing a need for better waste disposal, nutrition support, substance abuse control, and animal control. However, and most importantly, the research process encouraged adolescents to voice their beliefs and observations through multiple modes of expression. Since photovoice is intended to empower the powerless, the project achieved this goal by recruiting young participants who rarely participate in decision-making and research. In addition, adolescents are a unique population of participants, and their observations of the community reflect their intermediary role between childhood and adulthood. Adolescents are experiencing a period of rapid growth and identity formation, and this project forced adolescents to reflect on their personal and social identities. Lastly, this project provided learning opportunities for all involved, and both the researcher and participants gained a deeper understanding of health and sickness in Cato Manor. Ultimately, this project has multiple implications for the study of community health in Cato Manor, and the successes of this study demonstrate that youth have strong opinions about the community's most pressing health issues.

Firstly, this project accrued data about a topic that was virtually absent in the research literature. There was only one study, the WAVE study, which closely resembled this project in design and participant demographics. The WAVE study asked youth in South Africa, the United States, China, India and Nigeria to identify health issues that were important to them, and the researchers asked select participants to engage in a photovoice project (Mmari et al, 2013;124). However,

adolescents rarely have the opportunity to voice their opinions in the research process, and this is especially true in a South African context. Based on prior health research in South Africa, topics like HIV/Aids and Tuberculosis dominate the dialogue about adolescent health. Adolescents are rarely asked, “What health issues are important to **you**? What do **you** think is a possible solution?” These questions are vitally important since youth involvement should be an important part of any community health initiative.

Consequently, this project revealed that there were major discrepancies between the perception of South Africa’s biggest health issues (i.e. HIV/AIDS and Tuberculosis) and the results of this study. Namely, based on the high frequency of responses, the participants identified trash as one of the major determinants of ill-health in the community. Adolescents described trash as causing air pollution and adverse health outcomes in the community, especially among children. The participants identified both systemic and personal reasons for improper waste disposal, and the complexity of their answers defied expectations. Youth also provided complex responses about other health topics, but the sheer amount of trash-related data characterized the significance of this issue to participants.

The way in which participants described other health issues revealed additional information about their perceptions of community health. Conversations about substance abuse, nutrition, and physical activity showed that participants were attuned to healthy versus unhealthy behaviors. At the same time, participants often referred to the social, governmental, and societal origins of these health behaviors. In particular, discussions about substance abuse were especially

informative because participants often displayed an understanding of the term, “peer pressure.” The use of this terminology suggests that youth recognize the power of social relationships in a health context; it also alludes to the potential influence of school-based health education programs like Life Orientation.

Since participants were also given the Mandala of Health, this model could have also guided their selection of pictures. As described in the methodology section, the distribution of this model was designed to provide participants with increased guidance and support. It is possible that participants would have produced a different set of pictures without the Mandala, but the researcher heavily emphasized the importance of free expression when answering the research prompts. In theory, the open-ended nature of these prompts encouraged participants to photograph images that were meaningful and emblematic of significant health issues.

In conclusion, this project had multiple outcomes, many of which are difficult to measure. The visual and narrative data demonstrated that youth were knowledgeable about a variety of health topics, and they felt strongly about creating a clean and safe Cato Manor for residents of all ages. Participants had multiple opportunities for personal reflection in the photovoice process, and this experience ideally helped them to foster a critical consciousness of their social conditions. The findings of this study will ideally be shared with future SIT students, since the results often contradicted preconceived, top-down notions of public health in South Africa. Most importantly, this project should serve as a testament to the clarity of young voices and their desire for community-level change.

Suggestions for Future Research

Since this project gave participants more guidance before the picture-taking process, future research could determine whether instruction level impacts photograph selection among adolescent photovoice participants. This project provided participants with an initial theoretical framework, and future projects could experiment with providing adolescents with more or less information.

Furthermore, this study is purely descriptive, and the accuracy of participants' responses is unknown. For instance, many participants talked about the connection between air pollution and trash, but it is unclear if this correlation is scientifically grounded. Future research would investigate why participants feel this way, and whether this observation is accurate or based on speculation.

Similarly, future projects may want to investigate where youth get their health information, deconstructing the influences of teachers, friends, family, and media on adolescent perceptions of health. The influence of school, and more specifically the Life Orientation program, would be an interesting topic to explore since adolescents spend so much time in formal education.

References

- Bartlett, L. (n.d.). Paulo Freire and Peace Education. *Teachers College, Columbia University*. Retrieved from Eliza Governer PhD.
- Guest, G., MacQueen, K. M., & Namey, E. E. (2011). *Applied thematic analysis*. Sage.
- Hancock, T. (1993). Health, human development and the community ecosystem: three ecological models. *Health promotion international*, 8(1), 41-47.
- Jurkowski, J. M., & Paul-Ward, A. (2007). Photovoice with vulnerable populations: Addressing disparities in health promotion among people with intellectual disabilities. *Health Promotion Practice*, 8(4), 358-365.
- Mink, M. and Catalani, C. (2010). Photovoice: A Review of the Literature in Health and Public Health. *Health Education & Behavior*. (37) 424.
- Mmari, K., Blum, R., Sonenstein, F., Marshall, B., Brahmbhatt, H., Venables, E., ... & Sangowawa, A. (2013). Adolescents' Perceptions of Health from Disadvantaged Urban Communities: Findings from the WAVE Study. *Social Science & Medicine*.
- Muss, R.E. (2006). Theories of adolescence (6th ed.). New York: McGraw-Hill publishers.
- Piaget, J. (1972). Intellectual evolution from adolescence to adulthood. *Human development*, 15(1), 1-12.
- Shimshock, K. (2008). Photovoice Project Organizer & Facilitator *Manual*. *University of Michigan, School of Social Work Good Neighborhoods Technical Assistance Center (TAC)*.

- Starrin, B. & Svensson, P. (1991). Participatory Research; A Complementary Research Approach in Public Health. *European Journal of Public Health*. 1 (29-35).
- Stevens, C. A. (2006). Being healthy: Voices of adolescent women who are parenting. *Journal for Specialists in Pediatric Nursing*, 11(1), 28-40.
- Strack, R. W., Magill, C., & McDonagh, K. (2004). Engaging youth through photovoice. *Health Promotion Practice*, 5(1), 49-58.
- Wang, C. C. (1999). Photovoice: A participatory action research strategy applied to women's health. *Journal of Women's Health*, 8(2), 185-192.
- Wang, C.C. (2006). Youth Participation in Photovoice as Strategy for Community Change. *Youth Participation and Community Change*. Haworth Press inc.
- Wang, C. C., Morrel-Samuels, S., Hutchison, P. M., Bell, L., & Pestronk, R. M. (2004). Flint photovoice: Community building among youths, adults, and policymakers. *American journal of public health*, 94(6), 911.
- Wang, C. C., & Pies, C. A. (2004). Family, maternal, and child health through photovoice. *Maternal and child health journal*, 8(2), 95-102.
- Wilson, N., Dasho, S., Martin, A. C., Wallerstein, N., Wang, C. C., & Minkler, M. (2007). Engaging Young Adolescents in Social Action Through Photovoice The Youth Empowerment Strategies (YES!) Project. *The Journal of Early Adolescence*, 27(2), 241-261.
- Woodgate, R. L., & Leach, J. (2010). Youth's perspectives on the determinants of health. *Qualitative health research*, 20(9), 1173-1182.

List of Primary Sources

- Participant 1 (2014, April 20) Female Cato Manor Resident (R. Lamoreau, interviewer) Cato Manor, KwaZulu-Natal, South Africa.
- Participant 2 (2014, April 11) Female Cato Manor Resident (R. Lamoreau, interviewer) Cato Manor, KwaZulu-Natal, South Africa.
- Participant 3 (2014, April 11) Female Cato Manor Resident (R. Lamoreau, interviewer) Cato Manor, KwaZulu-Natal, South Africa.
- Participant 4 (2014, April 26) Female Cato Manor Resident (R. Lamoreau, interviewer) Cato Manor, KwaZulu-Natal, South Africa.
- Participant 5 (2014, April 25) Female Cato Manor Resident (R. Lamoreau, interviewer) Cato Manor, KwaZulu-Natal, South Africa.
- Participant 6 (2014, April 21) Male Cato Manor Resident (R. Lamoreau, interviewer) Cato Manor, KwaZulu-Natal, South Africa.
- Participant 7 (2014, April 27) Female Cato Manor Resident (R. Lamoreau, interviewer) Cato Manor, KwaZulu-Natal, South Africa.
- Participant 8 (2014, April 27) Female Cato Manor Resident (R. Lamoreau, interviewer) Cato Manor, KwaZulu-Natal, South Africa.
- Participant 9 (2014, April 15) Female Cato Manor Resident (R. Lamoreau, interviewer) Cato Manor, KwaZulu-Natal, South Africa.
- Participant 10 (2014, April 19) Male Cato Manor Resident (R. Lamoreau, interviewer) Cato Manor, KwaZulu-Natal, South Africa.
- Participant 11 (2014, April 17) Male Cato Manor Resident (R. Lamoreau, interviewer) Cato Manor, KwaZulu-Natal, South Africa.

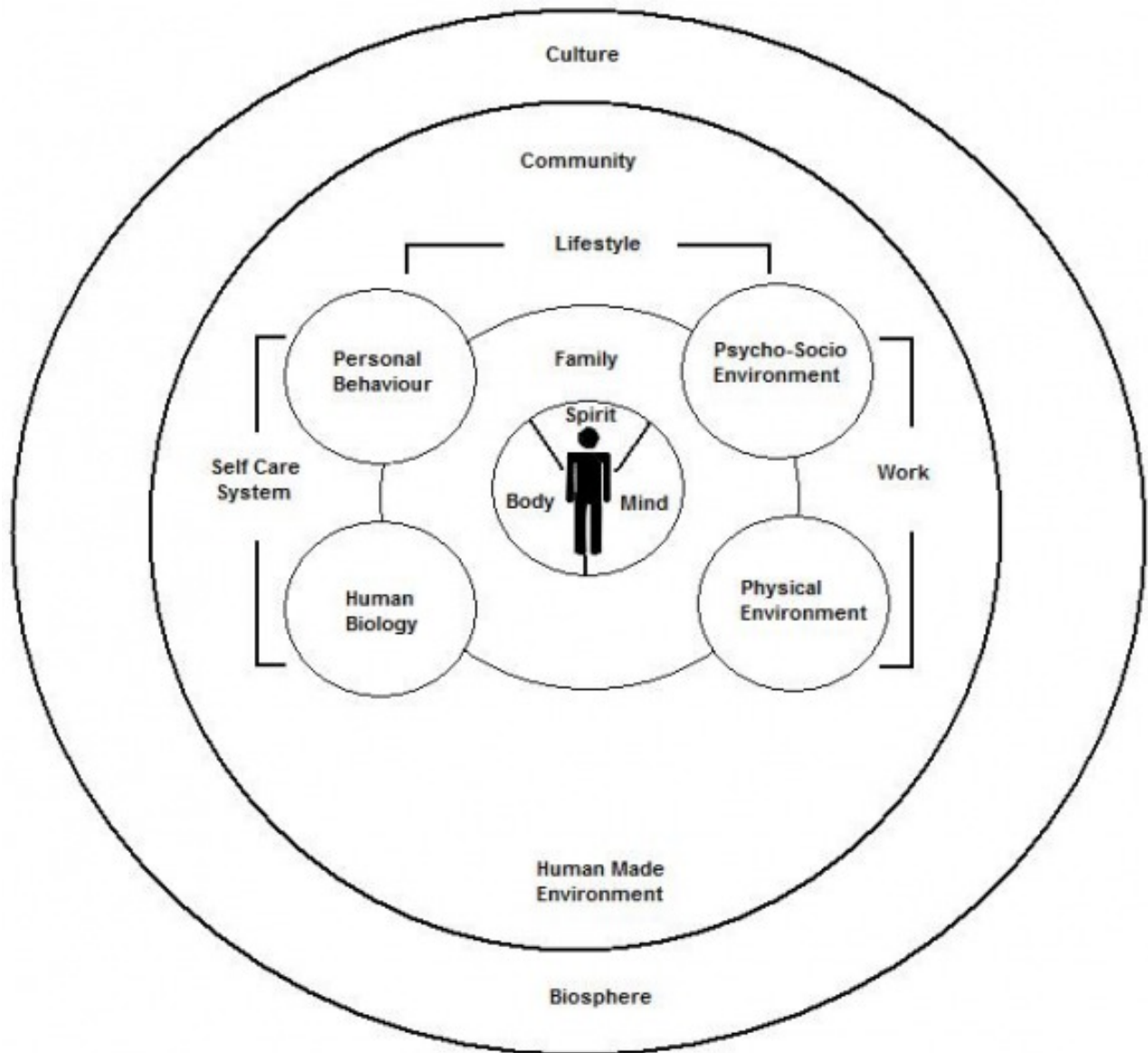
Participant 12 (2014, April 18) Male Cato Manor Resident (R. Lamoreau, interviewer) Cato Manor, KwaZulu-Natal, South Africa.

Participant 13 (2014, April 21) Male Cato Manor Resident (R. Lamoreau, interviewer) Cato Manor, KwaZulu-Natal, South Africa.

Participant 14 (2014, April 19) Male Cato Manor Resident (R. Lamoreau, interviewer) Cato Manor, KwaZulu-Natal, South Africa.

Participant 15 (2014, April 20) Female Cato Manor Resident (R. Lamoreau, interviewer) Cato Manor, KwaZulu-Natal, South Africa.

Appendix 1: Mandala of Health with Photovoice Prompts



1. What does health mean to you? Take pictures of different **objects**, **people** (if you obtain permission from them), and **events** in Cato Manor that show your thoughts and feelings about health.
2. Take pictures of things around Cato Manor that make people feel **healthy** or **sick**.

Consent Form For Adult and Child Respondents in English

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CONSENT FORM

1. Brief description of the purpose of this study

The purpose of this study is to investigate how youth in Cato Manor perceive health in their community. Using interviewing and photovoice, this study will use qualitative participatory research methods to answer the following questions: What objects, people, and events do youth associate with health? How do youth in Cato define health and sickness? The participants will answer these questions through photography and description of selected photos. The researcher will compile the results of the study into a written report that will be used for educational purposes only.

2. Rights Notice

In an endeavor to uphold the ethical standards of all SIT ISP proposals, this study has been reviewed and approved by a Local Review Board or SIT Institutional Review Board. If at any time, you feel that you are at risk or exposed to unreasonable harm, you may terminate and stop the interview. Please take some time to carefully read the statements provided below.

- a. **Privacy** - all information you present in this interview may be recorded and safeguarded. If you do not want the information recorded, you need to let the interviewer know.
- b. **Anonymity** - all names in this study will be kept anonymous unless you choose otherwise.
- c. **Confidentiality** - all names will remain completely confidential and fully protected by the interviewer. By signing below, you give the interviewer full responsibility to uphold this contract and its contents. The interviewer will also sign a copy of this contract and give it to you.

I understand that I will receive (*learner to indicate what will be given*)... or **no gift** or direct benefit for participating in the study.

I confirm that the learner has given me the address of the nearest School for International Training Study Abroad Office should I wish to go there for information. (404 Cowey Park, Cowey Rd, Durban).

I know that if I have any questions or complaints about this study that I can contact anonymously, if I wish, the Director/s of the SIT South Africa Community Health Program (Zed McGladdery 0846834982).

Participant's name printed

Participant's signature and date

Parent/Guardian's name printed

Parent/Guardian's signature and date

Interviewer's name printed

Interviewer's signature and date

I can read English. (If not, but can read Zulu or Afrikaans, please supply). If participant cannot read, the onus is on the researcher to ensure that the quality of consent is nonetheless without reproach.

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Statement of Ethics

(adapted from the American Anthropological Association)

In the course of field study, complex relationships, misunderstandings, conflicts, and the need to make choices among apparently incompatible values are constantly generated. The fundamental responsibility of students is to anticipate such difficulties to the best of their ability and to resolve them in ways that are compatible with the principles stated here. If a student feels such resolution is impossible, or is unsure how to proceed, s/he should consult as immediately as possible with the Academic Director (AD) and/or Independent Study Project (ISP) Advisor and discontinue the field study until some resolution has been achieved. Failure to consult in cases which, in the opinion of the AD and ISP Advisor, could clearly have been anticipated, can result in disciplinary action as delineated in the "failure to comply" section of this document.

Students must respect, protect, and promote the rights and the welfare of all those affected by their work. The following general principles and guidelines are fundamental to ethical field study:

I. Responsibility to people whose lives and cultures are studied

Students' first responsibility is to those whose lives and cultures they study. Should conflicts of interest arise, the interests of these people take precedence over other considerations, including the success of the Independent Study Project (ISP) itself. Students must do everything in their power to protect the dignity and privacy of the people with whom they conduct field study.

The rights, interests, safety, and sensitivities of those who entrust information to students must be safeguarded. The right of those providing information to students either to remain anonymous or to receive recognition is to be respected and defended. It is the responsibility of students to make every effort to determine the preferences of those providing information and to comply with their wishes. It should be made clear to anyone providing information that despite the students' best intentions and efforts, anonymity may be compromised or recognition fail to materialize. Students should not reveal the identity of groups or persons whose anonymity is protected through the use of pseudonyms.

Students must be candid from the outset in the communities where they work that they are students. The aims of their Independent Study Projects should be clearly communicated to those among whom they work.

Students must acknowledge the help and services they receive. They must recognize their obligation to reciprocate in appropriate ways.

To the best of their ability, students have an obligation to assess both the positive and negative consequences of their field study. They should inform individuals and groups likely to be affected of any possible consequences relevant to them that they anticipate.

Students must take into account and, where relevant and to the best of their ability, make explicit the extent to which their own personal and cultural values affect their field study.

Students must not represent as their own work, either in speaking or writing, materials or ideas directly taken from other sources. They must give full credit in speaking or writing to all those who have contributed to their work.

II. Responsibilities to Hosts

Students should be honest and candid in all dealings with their own institutions and with host institutions. They should ascertain that they will not be required to compromise either their responsibilities or ethics as a condition of permission to engage in field study. They will return a copy of their study to the institution sponsoring them and to the community that hosted them at the discretion of the institution(s) and/or community involved.

III. Failure to comply

When SIT Study Abroad determines that a student has violated SIT's statement of ethics, the student will be subject to disciplinary action, up to and including dismissal from the program.

I, Rebecca Lomonaco, have read the above Statement of Ethics and agree to make every effort to comply with its provisions.

Date: 3/27/14



Human Subjects Review
LRB/IRB ACTION FORM

in
Lato
Mamit,
South
Africa

<p>Name of Student: Renée Lamoreau</p> <p>ISP Title: Youth Perceptions of Health through Photovoice</p> <p>Date Submitted: MARCH 31, 2014</p> <p>Program: SIT South Africa: Community Health and Type of review: Social Policy</p> <p>Exempt <input type="checkbox"/></p> <p>Expedited <input checked="" type="checkbox"/></p> <p>Full <input checked="" type="checkbox"/></p>	<p>Institution: World Learning Inc. IRB organization number: IORG0004408 IRB registration number: IRB00005219 Expires: 22 December 2014</p> <p>LRB members (print names): Mr. John McGladdery </p> <p>Dr. Angela James </p> <p>Dr. Clive Bruzas </p> <p>LRB REVIEW BOARD ACTION:</p> <p><input type="checkbox"/> Approved as submitted <input type="checkbox"/> Approved pending changes <input type="checkbox"/> Requires full IRB review in Vermont <input type="checkbox"/> Disapproved</p> <p>LRB Chair Signature:</p> <p>Date: 04/01/2014</p>
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Form below for IRB Vermont use only:

Research requiring full IRB review. ACTION TAKEN:

☐ approved as submitted ☐ approved pending submission or revisions ☐ disapproved

IRB Chairperson's Signature

Date